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Agriculture development and food security: progress on the implementation of the outcome of the World Summit on Food Security

Report of the Secretary-General

Summary

Reducing the number and proportion of people who suffer from hunger and malnutrition is one of today's most difficult challenges. Efforts have been made more difficult by higher and more volatile food and fuel prices, political conflict, and persistent underinvestment in agriculture, food and nutrition. Many countries lack the social safety nets necessary to avert disasters such as the famine currently affecting Somalia. Long-term investments in sustainable agriculture, interlinked with efforts to adapt to and mitigate climate change, alleviate poverty, empower women, improve market access, and manage ecosystems and natural resources, are not happening quickly enough. Country-led responses supported by the international community must be intensified to meet the internationally agreed goals by 2015.

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I. Introduction

1. The present report has been prepared in response to the request made by the General Assembly in its resolution 65/178 that the Secretary-General submit to the Assembly at its sixty-sixth session a report on developments related to global efforts to address agriculture development and food and nutrition security, and on progress in the implementation of the outcome of the World Summit on Food Security.

2. Food and nutrition security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.[1] Food and nutrition security therefore covers availability, access, utilization and stability issues, and, because of its focus on the attributes of individuals, also embraces their energy, protein and nutrient needs for life, activity, pregnancy, growth and long-term capabilities. Food and nutrition security is a precondition for the full enjoyment of the right to food.[2]

3. Addressing the problem of global food and nutrition insecurity is one of the most important challenges of our time. Countries in the Horn of Africa are facing extreme crisis triggered by several seasons of irregular rainfall causing severe drought, and the world is far from reaching the goal of halving the number of hungry and malnourished in the world by 2015. International food and oil price rises are simultaneously putting pressure on the budgets of poor households and increasing the cost of humanitarian operations. The impacts of hunger and malnutrition can be especially severe for pregnant and lactating women, very young children, people living with disabilities and chronic disease (such as HIV/AIDS), the elderly, and other particularly vulnerable groups.

4. Expectations are high that the United Nations can help make a significant difference both in the immediate and the medium-longer term, particularly for those on low incomes who are net food buyers, including poor urban dwellers and rural people. A more coordinated effort is being undertaken as a result of the 2009 World Summit on Food Security.

5. This report benefited from inputs received from the High-level Task Force on the Global Food Security Crisis, including contributions from the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), the World Food Programme (WFP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The Task Force has intensified its work over the past year to mitigate and address the effects of recent price rises and excessive volatility, as well as the structural causes of food and nutrition insecurity in a comprehensive way, especially at the country level.

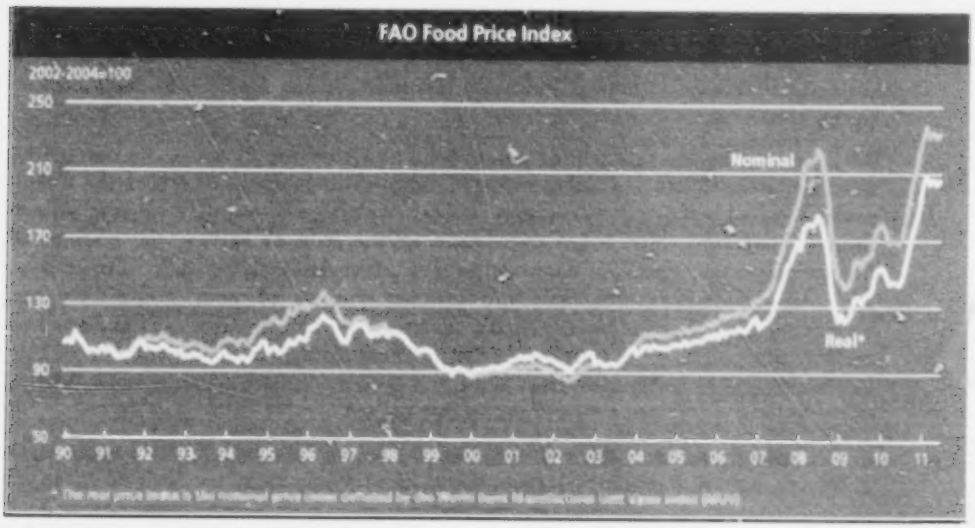
[1] High-level Task Force on the Global Food Security Crisis, "Food and Nutrition Security: Comprehensive Framework for Action", a Summary of the Updated Comprehensive Framework for Action, August 2011.

[2] Office of the United Nations High Commissioner for Human Rights/Food and Agriculture Organization of the United Nations fact sheet on the right to adequate food (OHCHR Fact Sheet Series No. 34).

II. Overview

Food price volatility: recent trends and drivers

6. Food prices have risen to an all-time high. The FAO Food Price Index hit a record 238 points in February 2011.[3] It averaged 234 points in June — 1 per cent higher than in May 2011 and 39 per cent higher than in June 2010. A strong rise in international sugar prices was behind much of the increase in the June value of the index. The FAO/Organization for Economic Cooperation and Development (OECD) publication *Agricultural Outlook* expects prices to remain above their historical trend levels and to continue to be volatile in the medium term.



Source: FAO, 2011.

7. Some degree of price volatility is typical of agricultural commodity markets as a result of their fundamental characteristics. Agricultural production is subject to natural shocks such as weather variations, pests and diseases. The recent price volatility has its origins in such fundamental factors — weather shocks in key producing and exporting countries coinciding with low stock levels.

8. The demand for food and feed crops for the production of biofuels is another significant factor. During the 2007-2009 period biofuels accounted for a significant share of global use of several crops.[4]

9. However, movements in the prices of food commodities in 2011 differ from what happened in 2008. In a number of countries, including in Africa, 2010 grain harvests were above average. Some domestic food prices are higher than in 2008, while others are relatively low compared to world price levels. The price of rice on

[3] The FAO Food Price Index is a measure of the monthly change in the international prices of a basket of food commodities. It consists of the average of five commodity group price indices; see www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/.

[4] "Price Volatility in Food and Agricultural Markets: Policy Responses", FAO/OECD joint report to the Group of Twenty (G-20) (2 June 2011).

the international market has not risen because of generally good harvests in Asia, with stocks in many rice-importing countries higher now than in 2008.

10. Food price volatility has been exaggerated by the closer links between commodity (agricultural and energy) markets and the often speculative activities of financial investors. The financialization of commodity markets has increased significantly since about 2004, as reflected in rising volumes of financial investments in commodity derivatives markets. This phenomenon is a serious concern, because the activities of financial participants tend to drive commodity prices away from levels justified by market fundamentals, with negative effects both on producers and consumers.[5]

11. If higher prices are transmitted from world markets to the farm gate and if the necessary inputs and other services, including market access, are available, farmers should be able to benefit by producing and selling more. This applies particularly to poor farmers, including smallholders, in developing countries: if they are enabled to respond, and are assisted to manage any associated risks, they should be able to increase their incomes. But this would not necessarily lead to improved food and nutrition security for the poor, who have to pay higher prices. FAO released the *Guide for Policy and Programmatic Actions at Country Level to Address High Food Prices*[6] and, between March and July 2011, convened a series of two-day policy seminars at regional and subregional levels, helping countries develop their policy responses to higher food prices.

Vulnerability to extreme weather events and the effects of climate change

12. More than 38 million people were displaced by sudden-onset climate-related disasters in 2010, undermining their livelihoods and food security. Trends indicate that less predictable, extreme climate events are becoming the norm.[7] By 2050, as many as 20 per cent more people could be at risk of hunger owing to climate-related losses in productivity. Climate change could lead to 24 million additional malnourished children, with the majority in sub-Saharan Africa.[8]

13. The economic costs of climate-related disasters are significant. In sub-Saharan Africa in 2009, almost 90 per cent of economic losses from disasters were due to drought.[9] In many areas of the world where agricultural productivity is already low and the means of coping with adverse events are limited, climate change is expected to reduce productivity to even lower levels and make production more erratic. Long-term changes in the patterns of temperature and precipitation, which are part of climate change, are expected to shift production seasons, pest and disease patterns, and modify patterns of crop production, affecting prices, incomes, and, ultimately, livelihoods and lives.

[5] United Nations Conference on Trade and Development, *Price Formation in Financialized Commodity Markets: The Role of Information*. Available at www.unctad.org/en/docs/gds20111_en.pdf.

[6] Food and Agriculture Organization of the United Nations (Rome, January 2011).

[7] "Displacement due to natural hazard-induced disasters: Global estimates for 2009 and 2010", Internal Displacement Monitoring Centre and Norwegian Refugee Council (2011).

[8] G. C. Nelson et al. (2009), *Climate Change: Impact on Agriculture and Costs of Adaptation*, International Food Policy Research Institute, Washington, D.C.

[9] E. Vos, J. Rodriguez, R. Below and D. Guha Sapir, *Annual Disaster Statistical Review 2009: the numbers and trends*. Brussels: Centre for Research on the Epidemiology of Disasters (2010).

14. Current research highlights strong links between drought risk and malnutrition: in Kenya, for example, children born in drought-affected areas are up to 50 per cent more likely to be stunted. The risk of malnutrition for children in Niger doubles during a drought. Climate change could lead to 24 million additional malnourished children, with the majority in sub-Saharan Africa.[8]

15. The most severe food and nutrition security emergency in the world is occurring in the eastern Horn of Africa, where one of the worst droughts since 1950 has caused crop failure and substantial livestock mortality, resulting in dramatically high food prices — up to 270 per cent higher in certain areas of Somalia.[10] Several United Nations agencies had issued warnings about a drought in the region, including in Somalia, Kenya, Djibouti and Ethiopia, in September 2010, but the extent and severity of the drought became clear only in June and July 2011. Preparedness actions were proposed, but not adequately supported. These factors, along with persistent political conflict and a ban on foreign humanitarian aid by militant rebel groups, have spurred massive migrations both to the Somali capital Mogadishu, and into refugee camps within Kenya and Ethiopia. The International Committee of the Red Cross (ICRC) estimates that 30 to 40 per cent of children under the age of 5 are suffering from acute malnutrition on arrival. The Famine Early Warning Systems Network projects that food security is unlikely to improve this year, and the crisis is likely to become worse. As of July 2011, more than 13 million people in the subregion needed humanitarian assistance, and the current emergency response is inadequate to prevent further deterioration. This situation highlights the adverse impact of drought on lives and livelihoods in communities that are already impoverished and have limited resilience.[11]

16. Preserving and enhancing food and nutrition security requires an increase in the productivity of farming systems, increased resilience in the face of climate risk and capacity to withstand agro-ecological and socio-economic shocks. They are all interlinked with the environmental, social and economic pillars of sustainable development. The recent report "Climate Change, Water and Food Security"[12] outlines actions needed to assist countries, in particular developing countries, in assessing probable climate change impacts on irrigated agriculture and on food production, and in adapting agricultural water management to cope with the range and depths of anticipated impacts.

Underinvestment in agriculture

17. National budgets are the primary source of public spending on agriculture, which has fallen to an average of around 7 per cent in developing countries, even less in Africa. The pattern is changing, especially through the Africa-wide approach of the Comprehensive Africa Agriculture Development Programme. Official development assistance (ODA) is an important source of public-sector investment for agriculture growth; however, it typically forms only about 15 per cent of total public expenditure in the sector. ODA to agriculture in developing countries has declined since the late 1980s: the share of official development assistance going to agriculture has fallen to as little as 3.8 per cent (though this, too, has started to rise

[10] See FEWS NET, "East Africa: Past year one of the driest on record in the eastern Horn", 14 June 2011. Available at www.fews.net.

[11] See www.fews.net.

[12] Food and Agriculture Organization of the United Nations (2011).

again). Commercial bank lending and foreign direct investment for agriculture in developing countries is also small; it represents less than 10 per cent of total bank lending in sub-Saharan Africa.[13]

18. In 2007, the level of investment in agriculture was estimated at $189 billion, three quarters of which is private investment. An estimated annual investment of $279 billion, including $208 billion in private investment, would be required to meet food demand in 2050. If ODA and foreign direct investment increase in proportion to the required amount of private investment, then ODA to agriculture would need to increase to $12 billion per year and foreign direct investment in developing country agriculture would increase to $4 billion per year. To reduce hunger by half by 2015 and eliminate hunger completely by 2025, FAO estimates that total public investment in developing country agriculture would need to increase to $120 billion per year. If ODA to agriculture continued to increase in proportion to domestic government expenditures, it would rise to $20 billion per year. Alternatively, if ODA increased to 0.7 per cent of donor countries' gross domestic product (GDP), as previously committed, and if agriculture's share of ODA increased to 17 per cent, as seen in the early 1980s, ODA to agriculture would rise to $44 billion per year. For the moment, and despite the mounting evidence of food insecurity catalysing civil unrest, there is scant evidence that ODA will rise sufficiently to meet this challenge.

Progress in reducing hunger

19. Millennium Development Goal 1 targets to reduce by half the proportion of people who suffer from hunger, while the 1996 World Food Summit goal is to reduce by half the number of these people, by 2015. The total number of people suffering from hunger in the world reached more than 1 billion in 2009. While the numbers of undernourished declined to about 925 million in 2010, much remains to be done to reach the Millennium Development Goal 1 hunger target. In the developing world, the prevalence of undernutrition affects one in six people (16 per cent in 2010, down from 18 per cent in 2009). This is still well above the target set by Millennium Development Goal 1. Food security is being threatened anew by higher and more volatile food prices since late 2010.

20. The vast majority of the world's undernourished people — 98 per cent — live in the developing world. Two thirds of these live in just seven countries: Bangladesh, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia and Pakistan. Over 40 per cent live in China and India alone. Projections for 2010 indicated that the pace of the decline in the number of undernourished people is very uneven among developing regions. The region with the most undernourished people continues to be Asia and the Pacific, with 578 million in 2010.[14] In addition, about 23 per cent of children are underweight in the developing world.

21. As of the 2005-2007 period (the most recent period for which complete country-level data are available), some countries, including Armenia and Viet Nam in Asia, achieved the Millennium Development Goal 1 hunger target, while China

[13] "Price Volatility in Food and Agricultural Markets: Policy Responses", FAO/OECD (3 May 2011).

[14] Food and Agriculture Organization of the United Nations, *The State of Food Insecurity in the World* (Rome, 2010).

and others are on track. In Latin America and the Caribbean, Guyana, Jamaica and Nicaragua have achieved Millennium Development Goal 1 and Brazil and others are approaching the hunger reduction target. The proportion of undernourished people remains highest in sub-Saharan Africa, at 30 per cent in 2010, but progress varies widely at the country level. As of the 2005-2007 period, the Congo, Ghana, Mali and Nigeria had achieved the Millennium Development Goal 1 hunger target, and Ethiopia and others were close to achieving it. In the Democratic Republic of the Congo, however, the proportion of undernutrition had risen to 69 per cent, up from 26 per cent in the 1990-1992 period.[14]

22. In spite of progress achieved in many countries, fragile States and many sub-Saharan countries still lag significantly in achieving the Millennium Development Goal 1 target, either because of poor initial conditions (e.g., low income levels or weak institutional conditions) or unfavourable development conditions often linked to protracted crisis. In 2010, FAO and WFP identified a total of 22 countries to be in protracted crisis situations, which are characterized by recurrent natural disasters, conflict, longevity of food crises, breakdown of livelihoods and insufficient institutional capacity to react to the crises.[14]

23. Given the high levels of food and nutrition insecurity and regular recurrence of food crises in the Horn of Africa and other areas, Governments, regional bodies and the international community are increasingly attempting to follow a twin-track comprehensive approach to food security, combining their responses to immediate needs with longer-term actions in order to address structural causes, increase capacity for managing disaster risk and build more resilient livelihoods and food production systems.[1]

III. Short-term safety nets

24. Nutrition interventions, emergency food assistance and safety nets play an important role in meeting the immediate needs of vulnerable and high-risk populations and in stabilizing their situation. Interventions should be based on food and nutrition security assessments and take country-level needs and capacities into account.

25. A report prepared in May 2011 by the World Bank and other members of the High-level Task Force on the Global Food Security Crisis assesses the progress of countries' efforts to protect groups that are food insecure, vulnerable to the effects of high and volatile food prices, and at risk of undernutrition, highlighting well-designed and executed social protection programmes in Brazil, Mexico and Ethiopia that have reduced the risks of hunger and malnutrition and mitigated impacts of price rises, while creating development opportunities, building human capital and encouraging economic growth. Cambodia and Indonesia are in the process of establishing similar systems, and evidence suggests that even modest safety net systems provide a springboard for intervention in crisis.[15]

26. Experience shows that labour-based (food or cash-for-work) short-term safety nets programmes can buffer communities from shocks and stabilize situations

[15] "Nutrition Interventions for the Most Vulnerable and Access to Humanitarian Supplies: Progress and Prospects", World Bank and the High-level Task Force on the Global Food Security Crisis (June 2011).

during seasonal shortages and in times of scarcity. Many of these interventions have a dual effect, by helping people meet their immediate food needs while enabling food insecure small-scale and marginalized farmers to generate new assets and provide incentive for investments in long-term resilience and productivity, a risk they otherwise could not take. The WFP-supported Managing Environmental Resources to Enable Transitions to More Sustainable Livelihoods programme in Ethiopia aims to increase the ability to manage shocks, meet necessary food needs and diversify livelihoods through sustainable land management, and institutionalize sustainable land management practices and systems at community level and replicate to other areas. The combination of sustainable land management practices with productivity and income-generating technologies has benefited over 600,000 people who have re-established their control over landscapes, resources and livelihoods, moving away from hunger and food insecurity.

27. Other targeted safety nets such as school feeding programmes alleviate hunger while supporting education, health, gender and community development. During economic shocks, such as those related to increasing food prices, or during protracted crises, school feeding becomes an effective safety net to sustain livelihoods and prevent those affected from adopting negative coping strategies. When linked with local purchases, school feeding programmes may increase the incomes of small-scale farmers and stimulate local development. Where school feeding is most needed, however, programmes are still largely supported by external funding. The challenge is to transition from externally assisted to nationally owned and funded programmes.[16] Inclusion of locally sourced foodstuffs decreases the costs of the food basket and allows for local purchases and smooth government takeover; it also generates savings that can be used to expand coverage and increase the food basket. To date, 37 countries have successfully taken over school feeding programmes from WFP.[17]

28. The World Bank Global Food Crisis Response Programme provides rapid assistance in the poorest and most vulnerable countries, mainly in sub-Saharan Africa and Asia, including stimulating short-term food production and fiscal space to allow reductions in import tariffs or suspension of custom duties or taxes on food, to mitigate the impact of higher prices. The Programme has currently allocated $1.5 billion to 44 countries, benefiting nearly 40 million people. It is authorized to expedite processing of up to $760 million of existing funds of the International Bank for Reconstruction and Development and the International Development Association through the end of 2011, with the possibility that this is extended through 2012.

29. The European Union Food Facility, launched with €1 billion in 2009, provides a quick and substantial response to the food crisis with a two-year programme to help developing countries move towards long-term food security. Set up in close collaboration with the High-level Task Force on the Global Food Security Crisis, the Food Facility focuses on programmes that will have a quick but lasting impact on

[16] See Donald Bundy, Carmen Burbano, Margaret Grosh, Aulo Gelli, Matthew Jukes and Lesley Drake, "Rethinking School Feeding: Social Safety Nets, Child Development, and the Education Sector", International Bank for Reconstruction and Development/World Bank/WFP (2009). Available at http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099080042112/DID_School_Feeding.pdf.

[17] See "Two minutes to learn about: School Meals". Available at http://documents.wfp.org/stellent/groups/public/documents/communications/wfp220221.pdf.

food security, with projects embedded in government policies for food and nutrition security and poverty reduction.

IV. Long-term sustainable development

30. While the international community works to respond quickly to short-term food and nutrition security needs, it must address the underlying issue of how to support countries' efforts to develop sustainable agriculture for long-term food and nutrition security, including markets that accommodate smallholder farmers, especially women. A strong "second track" reduces the need for "first track" emergency measures. Follow-up actions to implement decisions of the seventeenth session of the Commission on Sustainable Development pertaining to agriculture and rural development must be strengthened.[18]

31. Successful approaches to long-term sustainable agriculture are integrated with many different dimensions of development and policymaking, include relevant stakeholders, and incorporate a gender perspective.[19] Women are the majority of smallholder farmers and rural entrepreneurs, and they carry much of the burden of providing for and nourishing the household, and caring for those who are dependent on others. Compared with men, women have less access to productive resources, opportunities and services. Households headed by women face the greatest challenges.

32. National plans for food and nutrition security must be nationally articulated, designed, owned, implemented and led.[20] Long-term food and nutrition security requires countries to invest in making social protection systems accessible, maintaining food availability through productive and sustainable farming systems, sustainably managing ecosystems, and improving international food markets. Well-functioning social protection systems can defend households and individuals against shocks and can be a vital component of strategies to reduce poverty, hunger and malnutrition, particularly among smallholder farmers (including pastoralists and fishers) who are already food-insecure. Therefore, Governments should invest in social protection to increase the resilience of livelihoods. Social safety nets should be already in place at the onset of a crisis and be promptly activated.

33. However, 80 per cent of the world still has no access to any type of social protection, and coverage of social safety nets. Additionally, market-based instrumeats, such as microcredit and insurance, are particularly low in the most vulnerable countries.

Market-based solutions and development of agriculture value chains

34. Value chain development involves bringing together and strengthening the business partnerships between the different players who produce, trade, process and market agricultural products. The most important challenge is to bring small farmers into value chains as reliable and profitable partners and link them to markets.

[18] See E/2009/29-E/CN.17/2009/19.

[19] See Bina Agarwal, "Food Crises and Gender Inequality", Department of Economic and Social Affairs Working Paper No. 107 (June 2011), ST/ESA/2011/DWP/107.

[20] See Food and Agriculture Organization of the United Nations, Declaration of the World Summit on Food Security, WSFS 2009/2 (November 2009).

Without small farmer-focused value chain development, increasing numbers of farmers will be sidelined and excluded from profitable markets and be trapped in subsistence production. Food Security through Commercialization of Agriculture[21] projects in Guinea-Bissau, Liberia, Mali, Senegal, Sierra Leone, Guinea and the Gambia are examples of efforts to strengthen farmers' organizations, improve value addition, and promote farmer-market linkages.

35. The WFP Purchase for Progress pilot initiative engages smallholder farmers more directly in selling, using WFP purchasing power to support the sustainable development of food and nutrition security systems and transform food and nutrition assistance into a productive investment in local communities. A coordinated package of support addresses constraints smallholders face along agricultural value chains and enhances prospects for success. Supported farmers develop capacity to increase productivity, sell to WFP, and meet the demands of formal markets.

36. The importance of small and medium agricultural enterprises is also well-recognized, owing to their significant contribution to employment generation, national output and exports and fostering new entrepreneurship. However, small and medium agricultural enterprises are currently struggling to compete with larger companies and the growing tide of imported food products in developing regions.

37. Foreign direct investment in agriculture by multinational corporations and others has been promoted as key to solving the food security problem, especially in Africa. It is claimed that it will help alleviate the world food crisis by tapping into a country's "unused" agricultural potential and providing poor countries with money, infrastructure and other resources that improve food security. Some countries are also seeking new land to plant crops to meet their own food needs. The International Food Policy Research Institute reports that foreign investors bought from 37 million to 49 million acres of land in developing countries between 2006 and mid-2009.[22]

38. Many fear that these land purchases could further destabilize the food security of some developing countries, as land sold to foreign investors cannot be used to produce food for local communities. Moreover, this trend is likely to lead to large-scale industrialized agricultural production — dislocating smallholder farmers in the developing world and exacerbating rural poverty and food insecurity.[23] IFAD and FAO have studied the economic implications of international land deals to provide some guidance to countries.[24]

39. In March 2010, FAO, the United Nations Industrial Development Organization (UNIDO), IFAD, and the African Development Bank, with the support of the Government of the Federal Republic of Nigeria and under the auspices of the African Union, held a high-level conference on the development of agribusiness and agro-industries in Africa in Abuja. The Conference launched the African Agribusiness and Agro-industries Development Initiative. The goal of the initiative is to have an agriculture sector in Africa that by the year 2020 is made up of highly productive and profitable agriculture value chains that effectively link small and

[21] See www.fsca-pisa.org/.

[22] See "Buying farmland abroad: Outsourcing's third wave", *The Economist* (21 May 2009).

[23] See "Global Land Grab Undermines Food Security in the Developing World", Food & Water Watch, Fact Sheet, July 2009. Available at www.newscastmedia.com/GlobalLandGrab.pdf.

[24] See "Land grab or development opportunity? Agricultural investment and international land deals in Africa". Available at www.ifad.org/pub/land/land_grab.pdf.

medium-size agricultural producers to markets, supply higher-valued food, fibre, feed and fuel products, contribute to increasing farmers' incomes, utilize natural resources in a sustainable manner and generate increased and high-quality employment.[25]

40. At the behest of the African Development Bank, FAO reviewed post-harvest food losses and food loss programmes in Africa, and developed, in collaboration with the World Bank and the University of Greenwich Natural Resources Institute, a framework for food loss reduction programmes that moves away from the long-standing preoccupation with farm-level post-harvest management and storage. There is a groundswell of interest in food loss reduction programmes; an effective way to move forward is to address food losses through the agricultural value chains.

Natural resources management

41. Sound water management in agriculture will need to cope with less water per hectare of land and will also have to internalize the cost of pollution from agricultural land. Policy incentives that focus on the most pressing environmental externalities, while leveraging individual farmer's profit motives, have a greater chance of success. Solutions for sound water management in agriculture are more likely to be knowledge-rich than technology-intensive. Infrastructure is needed for developing water harvesting facilities and methods to make better use of rainfall.

42. In order to respond to the urgent need for governance of land and water resources in a context of increasing pressure on these resources, FAO has developed tools such as participative mapping of natural resources, geo-referenced data and Global Positioning System (GPS). Improvement of land-use planning also relies on the constitution of national task forces that involve all categories of stakeholders in order to strengthen institutional capacities to effectively regulate land use in concerned countries. FAO programmes in several regions assist smallholder farmers in improving livelihoods through improved management of existing cropping systems and the diversification of those systems to create additional livelihood opportunities and integrate communities into markets.

Urban/rural linkages

43. Enhancing food security among the urban poor and other vulnerable groups has become an increasing challenge in cities experiencing increasing populations and migration, economic crises and natural disasters. Through the Inter-Agency Standing Committee Task Force on Meeting Humanitarian Challenges in Urban Areas, United Nations agencies are working with humanitarian partners on assessment, livelihood support and multi-stakeholder interventions to enhance food and nutrition security in cities, with local authorities in the driving seat. Priority is increasingly given to sustainable urban development and more effective urban/rural linkages.

44. Urban and peri-urban horticulture is the cultivation of a wide range of crops within cities and towns and in the surrounding areas. While the urban poor, particularly those arriving from rural areas, have long practised horticulture as a livelihood and survival strategy, in many countries the sector is still largely

[25] The African Agribusiness and Agro-industries Development Initiative Framework is available at www.hlcd-3a.org/data_all/PDF_en/a3ADI_progFram1.pdf.

informal, usually precarious and sometimes illegal. The Growing Greener Cities Programme[26] supports the development of urban and peri-urban horticulture, with the goal of enhancing the efficiency of small-scale production activities and the quality and safety of their produce.

Forestry, fisheries and livestock

45. Efforts to ensure food and nutrition security must incorporate all aspects of agriculture. Improving animal production services and supporting sustainable livestock practices is essential, particularly for smallholders employing integrated crop-livestock systems. Agroforestry can greatly reduce greenhouse gases (GHG), accounting for one third of the estimated total GHG abatement potential until 2030.[27] Increasing attention has been given to agroforestry in the global arena, including the convening of the Second World Congress of Agroforestry (Kenya, August 2009), the First Africa Drylands Week (Dakar, June 2011), and the development by FAO of international guidelines for agroforestry.

46. Sustainable fisheries and aquaculture are also crucial to food security. In 2008, the world consumed 115 million tons of fish, and demand is expected to rise. Employment in fisheries and aquaculture has grown faster than the world's population and employment in traditional agriculture. In 2008, almost 45 million people were directly engaged in the sector. Add to these the important secondary sectors such as handling and processing, and women represent half of those involved. Altogether, including the family dependants of these workers, fisheries and aquaculture support the livelihoods of about 540 million people.[14]

Early warning systems

47. Strengthening the ability of the agricultural sector to predict, prevent and address the impacts of climate change and extreme weather events is a critical component of the efforts to address food and nutrition security. Integrated food security early warning systems allow for predicting and preventing some of the impacts of climate change and extreme weather events, linking weather index insurance with traditional risk management and social protection schemes. These strategies represent an important shift from managing disasters to managing risks, increasing the cost-effectiveness of food and nutrition security interventions.

48. UNESCO's Climate Frontlines is an interagency platform on traditional knowledge and climate change. It brings together United Nations agencies with expertise in small island developing States, traditional knowledge and indigenous peoples to promote the inclusion of indigenous and local knowledge in climate change adaptation policy. Notably, it supports a network of community-based research projects that provide data on how vulnerable communities are observing and coping with the impacts of climate change. The majority of these projects focus

[26] See www.fao.org/ag/agp/greenercities/.

[27] Ulrich Hoffmann, "Assuring Food Security in Developing Countries under the Challenges of Climate Change: Key Trade and Development Issues of a Fundamental Transformation of Agriculture", UNCTAD Discussion Paper No. 201, UNCTAD/OSG/DP/2011/1 (February 2011).

on the impacts of climate change of food production systems, including agriculture, pastoralism, fishing and soil management.[28]

49. FAO assists member countries in strengthening institutional and technical capacity necessary to assess impacts of climate variability and climate change on the agriculture sector. Tools and methods being developed and delivered at the country level include a crop monitoring toolbox, rainfall estimate routine, the Modelling System for Agriculture Impacts of Climate Change, and Farm Adaptive Dynamic Optimization. The disaster-risk management approach is also used to prevent, prepare for and mitigate impacts of extreme weather events.[29]

50. Ethiopia's Productive Safety Net Programme is another country-level example that aims to shift millions of chronically food-insecure rural people from recurrent emergency food aid to a more secure and predictable form of social protection that can help propel people out of hunger and poverty. As part of the national food security programme, the Government of Ethiopia partnered with WFP and the World Bank to improve its capacity to manage drought and flood risk by developing an innovative integrated national risk management framework through the Livelihoods, Early Assessment and Protection project, which supports national risk finance and management frameworks by linking early warning, contingency planning and capacity-building to a $160 million contingency fund.[30]

Building on consultations with key stakeholders

51. Multi-stakeholder approaches are at the centre of successful efforts to achieve long-term sustainable development. The expansion of agricultural productivity and the development of vibrant rural economies will require global attention to promoting empowerment and participation in partnerships by relevant government departments and elements of civil society, including food producer associations and organizations of consumers, workers and employers, women and men farmers, youth, indigenous people, urban poor and people living with disabilities and chronic disease, scientific and research bodies, regional and international organizations, development banks and the private sector.

52. Understanding and maintaining the inextricable relationships between peoples and their cultures, biodiversity, traditional livelihood and knowledge systems are critical factors in ensuring the food and nutrition security of indigenous peoples. Reduced access to land and natural resources, environmental degradation, climate change, globalization and the westernization of diet and lifestyle have dramatically affected the role traditional foods play in indigenous societies. Although many traditional food practices have been lost, there is still scope to recover and strengthen local food systems so that indigenous peoples can continue to reap the benefits of their long-standing traditions.

53. Adequate policies and programmes are needed to promote youth involvement in agriculture and development of the rural economy, to boost the image of

[28] See www.unesco.org/new/en/natural-sciences/priority-areas/links/climate-change-adaptation/projects/climate-frontlines/.

[29] See "Disaster Risk Management in food and agriculture", Food and Agriculture Organization of the United Nations. Available at ftp://ftp.fao.org/docrep/fao/012/i0772e/i0772e00.pdf.

[30] World Food Programme, Niels Balzer and Ulrich Hess, "Climate change and weather risk management: evidence from index-based insurances schemes", *Revolution: From Food Aid to Food Assistance: Innovations in Overcoming Hunger* (2010).

agriculture and make it more desirable for young people. The IFAD Strategic Framework for 2011-2015 seeks to do this by creating viable opportunities for youth in rural economies and has adopted the issue of youth development as the theme for the 2011 Governing Council.

V. Strategic coordination and effective collaboration

54. While Governments are responsible for food and nutrition security at the country level, the United Nations supports and complements national efforts. United Nations Resident Coordinators and Humanitarian Coordinators work with all relevant United Nations agencies in their respective countries to determine and implement the appropriate mix of actions for a comprehensive food security strategy that involves host Governments, non-governmental organizations (NGOs) and civil society organizations, and resident donor representatives.

High-level Task Force on the Global Food Security Crisis and the Updated Comprehensive Framework for Action

55. The rapid rises in food prices and threats posed to food security in 2008 propelled the international community to take action to protect world food security and nutrition for all. In April 2008, the High-level Task Force on the Global Food Security Crisis was established as a coordination mechanism and catalyst for the United Nations system. Chaired by the Secretary-General with the Director General of FAO as Vice-Chair, the Task Force brings together 22 organizations, funds, programmes and departments within the United Nations family, including the Bretton Woods institutions, the World Trade Organization and the OECD.

56. The High-level Task Force on the Global Food Security Crisis promotes a comprehensive and unified approach to the challenge of achieving global food and nutrition security through the Updated Comprehensive Framework for Action.[31] This approach provides a response to the immediate needs of vulnerable populations, as well as a contribution to longer-term resilience (the "twin-tracks to food and nutrition security"). It prioritizes sustainable agriculture, better ecosystem management, gender equity, the prerequisites for improved nutrition and the human rights of those least able to enjoy their right to food. It calls for joint actions to address all aspects of food and nutrition security — availability, access, stability and utilization — as a whole. It acknowledges that, while States have the primary role in ensuring food and nutrition security for all, a multiplicity of other actors have vital contributions to make. In 2011 a summary version of the Updated Comprehensive Framework for Action was prepared as an easy-to-read concise document that highlights the concepts and principles of the framework.[31]

L'Aquila Food Security Initiative

57. In July 2009 at the L'Aquila Group of Eight (G-8) Summit, the G-8 and other partners (Australia, Netherlands, Spain and Sweden) committed $22 billion towards food security over three years, which promised to help reverse the overall decline of aid and investment to the agricultural sector. They channelled these funds through the L'Aquila Food Security Initiative. However, of the total pledged, only

[31] Available at www.un-foodsecurity.org.

$6.1 billion is additional to previously planned expenditures. Notably, $1.5 billion of the total is allocated to development food aid and food security, which was not a focus of the pledge. It is expected that the majority of funds pledged under the Initiative will be administered through bilateral funding channels. The OECD-Development Assistance Committee has noted that although there are technical difficulties in accessing the exact figures of disbursements by the different donors, they are mainly on track in delivering their commitments, despite perceptions to the contrary.

Actions by G-20

58. G-20 appears to be driving actions for greater food security. At its summit meeting in Seoul in November 2010, G-20 leaders produced a Multi-Year Action Plan on Development that committed to enhance food security policy coherence and coordination and increase agricultural productivity and food availability.[32] G-20 leaders requested that FAO, IFAD, the International Monetary Fund (IMF), OECD, the United Nations Conference on Trade and Development (UNCTAD), WFP, the World Bank and the World Trade Organization work with key stakeholders to develop options for G-20 consideration on how to better mitigate and manage the risks associated with the price volatility of food and other agriculture commodities, without distorting market behaviour, ultimately to protect the most vulnerable. The report "Price Volatility in Food and Agricultural Markets: Policy Responses" (May 2011) provided recommendations that were subsequently adopted by the G-20 agriculture ministers at their meeting in June 2011, including agreement to:

(a) Strengthen the longer-term productivity, sustainability and resilience of the food and agriculture system worldwide, as well as support agricultural research and innovation and create the enabling environment to encourage public and private investment in agriculture;

(b) Launch the Agricultural Market Information System to increase collaboration between international organizations, major food exporting and importing countries and the private sector;

(c) Encourage G-20 finance ministers to take the appropriate decisions for a better regulation and supervision of agricultural futures and derivative markets;

(d) Bring the Doha Development Round to a successful conclusion and agree to remove export restrictions or taxes on food purchased for non-commercial humanitarian purposes;

(e) Support the development by WFP of a pilot project for a regional emergency humanitarian food reserves system, consistent with World Trade Organization rules, in partnership with the countries concerned;

(f) Encourage international organizations and multilateral and regional development banks to further explore counter-cyclical mechanisms to assist low-income food-deficit countries during food price surges;

(g) Support the efforts to provide vulnerable households, communities and Governments with effective, market-based risk management instruments.

[32] See G-20 Seoul Summit Leaders' Declaration, November 2010, para. 51 (e). Available at www.g20.org/Documents2010/11/SeoulSummit_declaration.pdf.

59. The Agricultural Market Information System was also launched in June 2011, and will hold its inception meeting in September 2011. It is a network of countries, organizations and the private sector, including FAO, IFAD, the International Food Policy Research Institute, OECD, UNCTAD, WFP, the World Trade Organization, the World Bank, and the High-level Task Force on the Global Food Security Crisis. It will provide a global food market early warning system that will issue alerts to price surges and help ensure better preparedness and more rapid and consistent policy responses in times of crisis through providing appropriate policy guidance and promoting policy coordination when the market situation and outlook indicates a high food security risk.

Global Agriculture and Food Security Programme

60. The Global Agriculture and Food Security Programme is a Financial Intermediary Fund administered by the World Bank designed to address the underfunding of country and regional agriculture and food security strategic investment plans already being developed by countries. The total amount pledged by donors to the Programme, equivalent to $925 million, is allocated to the Public and Private Sector Windows. To date, it has awarded grants to 12 countries, with a total value of $481 million, under two calls for proposals.

61. The resources received from donors as of June 2011 amount to $520.2 million for the Public Sector Window, representing 56 per cent of the total pledge. Donors include Australia, Canada, the Bill and Melinda Gates Foundation, the Republic of Korea, Spain and the United States. Ireland has contributed to the operating costs of the programme. No further invitation for applications for grants will be offered until additional funding is committed to the Global Agriculture and Food Security Programme account.

Reform of the Committee on World Food Security

62. The reformed Committee on World Food Security aims to create an inclusive multi-stakeholder platform where key actors work together in support of country-led processes to ensure food and nutrition security for all. The roles of the Committee include coordinating a global approach to food and nutrition security; promoting policy convergence and coherence; supporting and advising countries and regions; coordinating action at national and regional levels; promoting accountability and sharing best practices; and developing a global strategic framework for food and nutrition security.

63. The reform is guided by principles of inclusiveness, strong linkages to the field to ensure the process is based on a realistic situation on the ground, and flexibility in implementation so that the Committee can respond to a changing external environment and membership needs. The key features of the reform are expanded participation in the Committee to ensure that voices of all relevant stakeholders are heard in the policy debate on food and agriculture; increased focus on intersessional activities; strengthened linkages at regional, national and local levels; and inclusion of structured expertise through the creation of a high-level panel of experts on food and nutrition security.

64. The Committee on World Food Security submitted a progress report to the Economic and Social Council in July 2011,[33] providing updates on monitoring of events affecting food price volatility, the development of voluntary guidelines on the responsible governance of tenure of land and other natural resources, development of a global strategic framework on food and nutrition security, the work of the high-level panel of experts on food and nutrition security, improving mapping of food and nutrition security actions at the country level, increasing engagement of the private sector in activities of the Committee, and round tables to review methods of hunger measurement.

Strengthened collaboration among FAO, IFAD and WFP

65. The economic and financial crises, food and nutrition security crisis, climate change and volatility of food prices have provided new impetus for strengthening cooperation among the Rome-based agencies. Increasingly, FAO, IFAD and WFP coordinate their activities at policy, operational and administrative levels, and agree that collaboration should be pursued in the context of United Nations system-wide coherence, including under the "Delivering as One" pilots, in support of country-driven efforts and aligned with country priorities. Following the approval of the paper "Directions for Collaboration among the Rome-based Agencies",[34] collaboration on three areas has been undertaken since November 2009, including transition from relief to recovery and protracted crisis, Information Systems for Food and Nutrition Security, and communications. The gender units of the Rome-based agencies have also intensified their collaboration. A joint gender action plan was prepared covering research, advocacy, capacity development and coordination.

66. Through the joint IFAD/WFP Weather Risk Management Facility, WFP has been developing and evaluating weather index insurance tools for the community level. Following two microinsurance pilots in China and Ethiopia in 2009, the Facility is developing an innovative remote sensing-based weather index insurance approach for countries with limited weather infrastructure, which will be tested in Mali. Partnerships in weather insurance are being pursued and developed in Mali and other western African countries. In May 2010, under the Facility, WFP and IFAD jointly published a landmark study of 37 pilot weather index insurance projects to determine criteria for sustainable large-scale insurance projects.

Reform of the Consultative Group on International Agricultural Research

67. The recent reform of the Consultative Group on International Agricultural Research, supported by FAO, IFAD and the World Bank, adopted a results-based management approach for strategic planning, management and communications centred on continuous learning and accountability.

68. The new Strategic Results Framework of the Group establishes system-level outcomes that inform the design of the Group's research and research programmes that are the main organizational mechanism of the Group's research. The system-level outcomes are reducing rural poverty, improving food security, improving nutrition and health, and sustainable management of natural resources. The Group's research programmes make explicit the execution of Group research within a

[33] See A/66/76-E/2011/102.

[34] "Directions for Collaboration among the Rome-based Agencies", July 2009. Available at ftp://ftp.fao.org/docrep/fao/meeting/017/k5126e.pdf.

framework that allows a clear linkage between investment in its research and its potential impact on development outcomes. Priority is increasingly given to responding to local needs, including applied and operational research, validating and disseminating field experience and good practices, and building capacity of national institutions.

69. Consistent with results-based financing, the new approach shifts both the funders' and researchers' focus from delivery of outputs to delivery of research and development outcomes while clarifying accountability and joint responsibility.

Scale Up Nutrition Movement

70. Investing in nutrition between pregnancy and a child's second birthday saves lives. It prevents a long-term and irreversible impact on intellectual, physical and social development. It makes economic sense, reducing the burden on health-care systems, increasing educational achievement and improving prosperity. In 2010, over 100 organizations, representing Governments, civil society, the private sector, research institutions and the United Nations system, committed to work together to fight hunger and undernutrition, developing a Framework to Scale Up Nutrition and a road map to provide the principles and direction for increased action.

71. Since the launch of the Scale Up Nutrition Movement at the High-level Plenary Meeting of the General Assembly on the Millennium Development Goals in September 2010, 17 countries have been prioritizing food and nutrition security in their national programmes through nutrition and gender sensitive development that has nutritional outcomes as a key goal of their development policies in sectors such as agriculture, health, social protection and education. They are investing in direct nutrition interventions such as promoting antenatal nutrition, breastfeeding, food fortification and complementary feeding. The international community is aligning its support with country plans to scale up nutrition. Several of these countries, and stakeholders that are supporting them, will be participating in a high-level meeting in New York to review progress in September 2011.

North-South, South-South and triangular cooperation

72. Solutions for sustainable agriculture and food and nutrition security are increasingly shared and scaled up through South-South and triangular cooperation. Recently, for example, India and the United States forged a triangular arrangement with Liberia, Malawi and Kenya to promote food and nutrition security,[35] and a High-Level Meeting on South-South and Triangular Cooperation was convened in November 2010 by the United Nations Development Programme in partnership with the International Labour Organization and the Japan International Cooperation Agency, with a focus on meeting the Millennium Development Goals.

73. Many South-South cooperation agreements have been organized by FAO to improve food and nutrition security within poor households and increase food production, providing expert technicians who work directly in the field and provide hands-on training to researchers, extensionists and farming communities in recipient countries. These have been instrumental in convincing local and national authorities of the value of disseminating innovative technologies on a much wider scale. In the past 15 years, FAO has supported South-South cooperation programmes in more

[35] "US, India to Collaborate on Food Security in Africa", *Economic Times*, 20 July 2011.

than 40 countries, and over 1,500 experts and technicians have been fielded for durations of one to three years, among which 800 were fielded by the People's Republic of China. Under FAO's Strategic Alliance with China, training courses for African experts are planned to take place in Chinese research and training centres.

Regional coordination

74. Food and nutrition security is a key development outcome through the Comprehensive Africa Agriculture Development Programme of the African Union, which, together with Africa's regional economic commissions, has stimulated multi-stakeholder efforts for country and subregional compacts and investment plans. To date, some 26 countries have completed Comprehensive Africa Agriculture Development Programme compacts and 16 have prepared and peer reviewed national agriculture investment plans.[36]

75. Regional coordination in the management of emergency food stocks, especially in the Horn of Africa, needs to be capable of handling multicountry issues and ensuring that cross-border interventions are timely and effective. Coordination should build on existing mechanisms. This should include strengthening the capacities of the Intergovernmental Authority on Development and other regional actors. The Inter-Agency Standing Committee Plan of Action for the Horn of Africa, developed by FAO, WFP and Oxfam in October 2010, remains valid as a guide for action, though it may need to be updated.[37]

VI. Conclusion

76. **Agriculture development and food and nutrition security are complex sustainable development issues. Efforts to promote "green" or "climate-smart" ways of enhancing food production must be complemented by efforts to ensure access to food and sustainable development pathways. National Governments must do more to implement the decisions of the seventeenth session of the Commission on Sustainable Development.**

77. **Agriculture and food and nutrition security will remain high on the international agenda in 2011. The United Nations Conference on Sustainable Development (Rio+20) will provide a global opportunity to focus on these issues, and many are already exploring what the "green economy" theme implies for food and agriculture. To this end, the Netherlands has formed an informal group of friends on food and nutrition security, and FAO has launched a "greening the economy with agriculture" initiative to mobilize the food and agriculture sector for Rio+20, in the context of sustainable development and poverty alleviation.**

78. **Events linking agriculture and food and nutrition security with the green economy theme include a joint FAO/OECD expert meeting on "greening the economy with agriculture", to be held in Paris in September 2011; a ministerial dialogue on the theme "Green economy: integrating poverty eradication, food security and energy security" in New Delhi in October 2011; and an**

[36] See www.nepad-caadp.net/.

[37] Notes from the High-level Task Force on the Global Food Security Crisis Senior Steering Group Meeting; Special Meeting on the Horn of Africa, June 2011.

international conference in Bonn in November 2011 to examine the nexus of water, energy and food security.

79. A comprehensive approach to meeting the 2015 target for reducing the world's hungry by half will require concerted effort by the international community to stay focused on scaling up successful approaches to sustainable development, mobilizing all stakeholders, and ensuring that funding pledges are fulfilled. With increasingly coordinated actions and a twin-track and comprehensive approach, reaching the agreed goal by 2015 remains possible.